

Amendments to the Abstract:

Please amend the Abstract on page 65 as indicated:

ABSTRACT OF THE DISCLOSURE

~~METHOD AND APPARATUS FOR PERFORMING A STABLE HASH-BASED MAPPING COMPUTATION IN CONSTANT TIME OVER A DYNAMICALLY VARYING TARGET SET OF COMPUTATIONAL RESOURCES~~

~~A method is presented for m~~Mapping a source identifier in a source identifier space to a target identifier in a target identifier space using a hash-based computation that is stable over time with respect to a change in the number of target identifiers. A data item identifiable by a source identifier is ~~to be~~ associated with some type of computational resource that is represented by a target object identifiable by one or more target identifiers. The set of target objects is dynamically variable, ~~yet the mapping is stable over time~~. After hashing the source identifier to produce an index position of an entry in a table, a target identifier is retrieved from the table entry, ~~thereby mapping the source identifier to the target identifier in a mapping operation whose speed is independent of the number of target identifiers~~. Each entry in the table is related to a single target identifier, ~~yet each target identifier may be related to more than one table entry~~. The ~~target becomes related to a table entry~~ based on a ~~[""]~~nearness~~[""]~~ computation that depends upon the table index position of the table entry and a target identifier for the related target. The ~~nearness computation is performed between each table entry and each target identifier to obtain a fair distribution of relationships between table entries and targets~~. Targets can be added or removed with minimal impact on the table. The mapping operation may also incorporate target weighting that is proportional to a target's computational capacity.